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A WEEKLY EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(66) The Connection of Acute Pneumonia with External Injury.

DR. HEIMANN (*Berlin. klin. Wochenschr.*, October 6th) gives a case from his own practice in which a fall was followed by pneumonia and a certain amount of pleurisy in the person of a weaver, aged 56, who fell down a flight of ten steps on his right side, causing contusion of his right hip and thigh and the right side of his thorax, especially between the sixth and eighth ribs, but no ribs appear to have been broken. He was confined to bed, and soon recovered from the injury both to the lower extremity and the thorax, but five days later complained of sharp pain in the right lower chest, with shortness of breath and thirst. The temperature rose to 104° F., and dulness with bronchial breathing, sonorous *râles*, and friction sound over the lower lobe of the right were detected. The pneumonia resolved in sixteen days, but the pleurisy remained, giving rise to some dyspnœa, and the patient claimed a pension from an accident fund, on the ground of the lung lesion being the result of an accidental injury. Dr. Heimann discusses the possibility of pneumonia arising in this way, in the same way that osteomyelitis follows external injury. He gives an instance of tuberculosis supervening on an injury to the chest wall from a stone falling on a man, who died of phthisis dating from the accident. In the weaver's case, the accident fund took the view that the pleuropneumonia was due to the accident, and awarded him a liberal pension.

(67) Communicability of Diabetes.

DR. RICHARD SCHMITZ (*Berlin. klin. Wochenschr.*, May 19th) says that many years ago he noticed that man and wife occasionally were both diabetic. Up to 1880 he had met with 8 such cases. Now he has observed 26, and increased experience has taught him that quite healthy persons, without hereditary predisposition, may become suddenly diabetic after tending a diabetic for a long time, sleeping in the same room and living intimately with him, especially kissing him often. In no single case was there any hereditary tendency or any blood relationship between the parties, nor was there any known cause for the diabetes; the persons had neither eaten much sugar nor suffered from gout. He thinks this number, more than 1 per cent. of the whole, is sufficient to justify the inquiry whether some cases of diabetes may be communicated by very prolonged and intimate relations with a diabetic patient. He relates the following cases:—(1) J. M., aged 48, diabetic for two years. Urine contained 1.5 per cent. sugar. After treatment this disappeared. He was attended by his strong and healthy wife. Two years later they both returned diabetic, the husband much in his former state; the wife very ill. She had been diabetic for six months; percentage of sugar, 4.5. She was aged 31, had been previously healthy, came of a healthy family, was not related to her husband, had not eaten much sugar; in fact all explanation of the origin of the disease failed. She died in four months. (2) F., aged 38, diabetes discovered a year before, but had existed longer. Percentage of sugar, 4.0. He died in four weeks. His healthy and blooming wife brought him to Neuenahr and nursed him. Two months later she complained of being diabetic; severe pruritus led to its discovery. She was aged 34, had been six years married, had two children, came of a quite healthy family, with no hereditary predisposition; was not related to her husband, had not eaten many sweets, in fact no cause could be discovered. The sugar soon disappeared. Next summer she came again in the same state, but in a month the sugar disappeared. She married in the autumn of that year. She returned three years later with her second husband. The urine still contained a little sugar, but there was no wasting or pruritus. Her second husband was, however, diabetic. He was younger than his wife, 35, not related to her, of a healthy family with no hereditary predisposition, had not eaten much sugar, and had never been dissipated. Percentage of sugar, 4.0; which disappeared after five weeks' treatment. Schmitz has since lost sight of them. (3) L., 55, diabetic five years, was attended by his wife. She suffered from sciatica, for which her urine was examined and found to contain 2 per cent. of sugar. This disappeared four weeks later. She was 45 years of age, not related to her husband; no gout or diabetes in family, no previous serious illness, no abuse of sugar. (4) X., 45, had lived for a year with a dancer, whom he gave out as his wife. She complained of being thirsty, and this young woman, of 22, was found to have 5 to 6 per cent. of sugar in her urine. The family history was good, she had been always healthy, and had not eaten many sweets. She died soon after. (5) F. M. X., 30, diabetes discovered a year before, sugar, 2.6 per cent. She was tenderly nursed by a healthy husband, who suddenly was attacked by so called gastric fever. He examined his own urine and found it contained 4 per cent. of sugar. The husband soon recovered on careful diet, but the wife died. (6) Miss S. had nursed a diabetic friend, who died at Cannes, on her way back to England from San Remo. She had scarcely left her day or night. Some months later she developed diabetes, sugar, 5 per cent., great emaciation. No cause could be found for this, except the emotion due to the death of her friend. (7) A., aged 68, five years or more diabetic, 2 per cent. sugar. His wife, who was about the same age, accompanied him. A fortnight later the wife com-

plained of weakness, and her urine was found to contain 4 per cent. of sugar. On careful diet this disappeared in three weeks. There was no hereditary tendency, she was not related to her husband; her previous health had been good, and she had not eaten much sugar.

(68) The Free Acid of the Gastric Juice during Digestion.

VON JAKSCH (*Zeitschrift f. klin. Medicin.*, Bd. xvii, p. 383) makes an interesting contribution to our knowledge of the above subject. He finds that free hydrochloric acid is present in considerable quantity as early as a quarter of an hour after the ingestion of food. The quantity depends on the character of the food, and usually reaches its maximum in from one to three hours. This increase, however, is not a steady one, but shows intermissions after the first hour and a quarter, hour and a half, or even two hours. It is always most rapid on a meat diet, slower on milk diet, and slowest of all on a pure carbohydrate diet. The greatest quantity of acid found in any one case—0.1615 per cent.—was obtained on a milk diet (fourteen observations), slightly less on a meat diet—0.1563 per cent.—(eleven observations), and least of all on a carbohydrate diet—0.1102 per cent.—(ten observations). Digestion appears to be completed most rapidly on a meat diet, next in order coming carbohydrate and milk diet. He concludes that entire absence of free hydrochloric acid from the gastric juice, or its presence in traces only, during the first quarter to half an hour of digestion, is without pathological significance. If no free acid is present one to three hours after ingestion of meat or milk, it is extremely probable that some severe disturbance of gastric function exists. On a carbohydrate diet, on the other hand, the presence of a mere trace of free hydrochloric acid is quite consistent with conditions of health. Furthermore, we are not justified in concluding that the presence of free acid in considerable quantity two to three hours after ingestion of meat or milk points to some pathological condition, as wide variations are possible within physiological limits.

(69) Latent Cancer of the Stomach.

DR. J. CLAVELIN, a French army surgeon, reports (*Archives de Médecine et de Pharmacie Militaires*, October, 1890) a case of latent cancer of the stomach in a man, aged 23. The patient had been seventeen months in the service, and had suffered from no illness till January 10th, 1890, when he was seized with influenza complicated with suppurative otitis media. After recovery he was sent home for a fortnight to recuperate, but on rejoining his regiment he was so weak that, after an ineffectual course of tonic treatment, he was sent back to hospital on February 25th. He complained of no pain, but was extremely anæmic, and so weak that he could not walk. The heart beat was regular, and there was no dyspnœa or cough. The man had no appetite whatever; the stomach was dilated and the belly tympanitic. There was no vomiting and the bowels were opened, though not freely, every day. Percussion and palpation of the abdomen revealed nothing. The liver and spleen were normal; no glandular enlargement could be felt anywhere; the left pupil was much more dilated than the right. Progressive pernicious anæmia following influenza was diagnosed, and nourishing diet and tonics prescribed, but the patient could not be induced to eat. On March 2nd, after much pressing, he took at midday a little soup, a small piece of chop, and a little pastry. About three o'clock he began to vomit; this happened three or four times in the course of the afternoon. It was thought that he was suffering from indigestion, and a light diet was ordered. The vomiting did not recur, but the patient became steadily weaker, his face became yellow and puffy, but there was neither ascites nor dropsy. The weakness increased, and he died on March 8th. At the necropsy the thoracic organs were exsanguine but healthy; there were from 15 to 20 enlarged and degenerated glands, varying in size from a pigeon's egg to a haricot bean, in the posterior mediastinum. The stomach, which was much distended, was the seat of a tumour, forming a sort of funnel above the pylorus. On section this was found to be composed of a white lardaceous-looking substance. The pylorus only allowed the passage of a pencil. The lymphatic glands in the neighbourhood of the stomach were enlarged and matted together; the pancreas was fixed to the stomach by a mass of diseased glands, and was itself partly affected; the mesenteric glands were infiltrated with cancerous deposit, and formed a solid mass, in which were imbedded the abdominal aorta, the inferior vena cava, and the mesenteric arteries and veins. The other organs presented no pathological change worth mentioning. Microscopic examination made by M. Malherbe showed that the disease was colloid cancer.

SURGERY.

(70) A Possible Danger in Operations on Large and Old Inguinal Herniæ.

PROFESSOR KÜSTER (*Centralblatt für Chirurgie*, No. 36) reports a case in which, immediately after the reduction into the abdominal cavity of a large inguinal hernia on the right side, the patient became cyanosed, and the respiration, at first rapid and shallow, soon ceased, whilst the pulse remained full and strong. As attempts at artificial respiration failed and the pulse became feeble and the pupils dilated, the trachea was opened. The dyspnœa, it was found, had been caused by the presence in the air passages of the contents of the stomach, which flowed freely from the wound. The foreign matter was rapidly removed and further efforts made to revive respiration, but with no result, the patient dying on the table. The cause of death in this case, it is pointed out, was very evident. The reduction of a large mass of intestine into a contracted abdominal cavity increased the intra-abdominal pressure to such an extent as to cause the contents of the stomach to be forced along the œsophagus into the pharynx, whence they were inspired into the lungs. This unfortunate case has led Professor Küster to urge that in every instance of operation for the reduction of large and old herniæ the stomach should previously be washed out, in order, on the one hand, to facilitate the return of the intestine, and, on the other hand, to secure the patient against the danger of the contents of the stomach being forced into the air passages.

(71) Cholecystectomy.

M. TERRIER records (*Bull. de l'Académie de Médecine*, t. xxiv, p. 379) the second operation for removal of the gall bladder which he has performed. As in the previous case, the result was successful. The operation has only been done five times in France, twice by Dr. Michaux for the cure of persistent biliary fistula, twice by Dr. Terrier for the removal of gall bladders containing calculi, and once by Dr. Périer for the same reason. Dr. Terrier's patient was a woman, 55 years of age, who had suffered from hepatic colic accompanied with intense pain, for twenty-six years. Her sufferings were so severe that

they almost caused syncope. The liver was enlarged, and reached four finger's breadths beyond the ribs The gall bladder could not be felt, and there was no jaundice until just before the operation, when the usual signs of biliary obstruction appeared. As these symptoms were not relieved by remedies, and a fatal ending seemed likely, the abdomen was opened through the right linea semilunaris and a voluminous and distended gall bladder found. It was adherent to the omentum, but was easily detached. About half a litre of clear, viscid, almost colourless, fluid was drawn off. An opening was then made, and a number of calculi removed with difficulty. The neck of the gall bladder was then ligatured, and its body and fundus removed, and the abdomen closed in the usual way, a medium-sized drain being left in. The operation took two hours. Afterwards a great quantity of bile escaped from the wound, and there was much vomiting, but the patient made a good and complete recovery. In discussing the operation, M. Terrier remarks that a median incision would be more advantageous than that which he adopted if the gall bladder was very large, as it facilitates exploration, and permits the surgeon to reach the under surface and neck of the gall bladder more easily. Also the extreme thinness of the cyst may be a difficulty, and necessitate its ablation, together with a part of the cystic canal. The separation of the bladder from the liver substance causes free oozing of blood, which can be stopped by sponge pressure or thermal cautery; large vessels can be lightly tied. Care is necessary in ligaturing the neck of the gall bladder, otherwise bile may escape, as it did in the case narrated.

(72) Surgical Treatment of Tuberculous Peritonitis.

M. MAURANGE (*Nouv. Arch. d'Obstétrique et de Gynéc.*, September, 1890) has collected statistics of seventy-one cases in which abdominal section had been performed for tuberculous peritonitis; 83 per cent. were operative successes, and of these about half were doing well one year after the operation. In many cases which afterwards died of other tubercular affections the peritoneal lesions were found completely cured. The precise way in which cure of the local affection is brought about by abdominal section is not clear; many theories have been advanced. M. Maurange maintains that the operation simply places the patient in a condition favourable for cure by unburdening the peritoneal cavity of its ascitic effusion, which is, moreover, a true cultivating fluid. The proceeding also insures antisepsis. Abdominal section is not only advisable in cases where a localised tuberculous area exists, but also in cases where the patient's general condition grows worse, and where the disease spreads whether ascites exists or not. Some surgeons are content to open the peritoneal cavity; others flush it with antiseptic lotions, dress it with iodoform, or drain. M. Maurange has seen good results follow a less extreme practice than abdominal section. The ascitic fluid is removed by aspiration; antiseptic washing with subsequent evacuation of the fluid follows the aspiration, and lastly variable quantities of a mixture are injected into the peritoneum. This mixture consists of 4 grammes of iodoform dissolved in 100 grammes of liquid oil of vaseline. This injection can be safely repeated, considering the small proportion of the iodoform and the weak absorbing power of the diseased peritoneum.

(73) Crushing of Perineum with Rupture of the Urethra.

DR. LUDWIG NOVOTNY (*Wien. med. Zeitung*, October 7th, 1890, p. 471) describes a case of the above nature which presents some points of special interest. The patient, who was run away with, was thrown astride a carriage pole, and arrived at the hospital about twenty-four hours after the accident, having passed no water since the injury. There was considerable bruising of the soft parts, especially of the scrotum, and a swelling as large as one's fist to be felt deep in the perineum, as well as one (apparently the same one) about the size of a goose's egg, which could be distinguished easily on the anterior wall of the rectum. Some water, amounting to about half a litre, was drawn off, blood-stained and mixed with clot, but no more could be removed, yet the dulness about the pubes remained, and an incision in the perineum did not relieve the symptoms. The deep swelling which could be felt by the rectum and perineum meanwhile grew larger, and a little later an incision was made, and a rupture discovered far back in the urethra confined to one side of it, and situated almost entirely between the two layers of the triangular ligament. As soon as the deeply situated extravasated blood and urine were reached the swellings disappeared. The wound in the urethra was sutured, a catheter tied in, and in a little over three weeks the patient left the hospital with his wounds all healed.

MIDWIFERY AND DISEASES OF WOMEN.

(74) The Duration of Pregnancy.

ISSMER (*Archiv für Gynäk.*, vol. XXXV, Part 2) publishes certain researches on the question of the duration of pregnancy. According to clinical observations, it appears that the date of birth is an event independent of menstrual congestion. Dr. Issmer noted the history of 22 ovariotomies and 2 operations for removal of the appendages, and inferred therefrom that typical menstrual hæmorrhage is a direct result of changes in the ovaries. In most cases that hæmorrhage is the outward visible indication of expulsion of an ovum. It is important, if possible, to ascertain the date of conception, and to determine from which menstrual period the fertilised ovum arises. Dr. Issmer collected 1,220 cases where the date of the last period was authenticated, 628 where the date of conception could be fixed, and 471 where both were known. The date of the last menstrual period is certainly the surest for beginning the reckoning of pregnancy under ordinary circumstances, as it is an event which the patient can correctly observe. Close inquiries in cases where the date of conception can be fixed show that the probability of impregnation during the first fourteen days after menstruation compared with its probability during the remainder of the menstrual cycle is as 2.68 to 1. One-third of all impregnations occur between the eighth and twelfth days, counting from the beginning of the last period. Pregnancies arising from conception during the first half of the cycle are the shortest. The chances appear to be as 3.67 to 1 that impregnation followed the last period rather than the last but one. The beginning of labour represents a reaction to the sum of certain internal and external stimuli, dependent upon the amount of the stimuli and on the power of resistance which the uterus can offer. A male fœtus is expelled, on an average, 1.5 day earlier than a female. The normal duration of pregnancy is 280.1 days. The range is from 260 to 304 days, only reckoning cases where the fœtus is well developed.

(75) Morphine in Labour.

DR. W. R. SIMPSON (*St. Louis Clinique* and *Archives of Gynecology*, August, 1890) states that in the

majority of cases, perhaps, there is no necessity whatever for administering anodyne remedies during labour. In exceptional cases of multiparæ and very frequently in primiparæ, however, the labours are so tedious and painful that the attendant feels strongly impelled to administer some anodyne treatment. After an experience of a number of years with the rather free use of morphine in painful labours, Dr. Simpson has never observed any consequences calculated to excite the least alarm. The drug does not cause drying of the secretions or any injurious effects upon the child or the mother. Even the nausea and vomiting, which so commonly follow its use under other circumstances, have rarely been noted. Dr. Simpson is in some doubt as to its influence upon the duration of labour. He is satisfied that it does not prolong, and is inclined to believe that it accelerates, the whole process. The quantity given in cases of slow labour where the presentation is correct and the pelvic dimensions normal should be from one-eighth to a quarter of a grain, hypodermically injected by preference, and repeated as occasion requires. The greatly diminished suffering under the influence of morphine is very deceptive as to the rate of progress of the labour, so that the precaution should be observed of carefully watching these patients lest the labour should be terminated during the temporary absence of the medical attendant.

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(76) Massage in Gynæcology.

Dr. Holtzapfel (*Wiener medizinische Blätter*, October 2nd) publishes a series of cases in which massage proved useful in certain forms of pelvic disease. Most of the cases were in Professor Freund's wards in a Strassburg hospital. Massage must not be attempted in the subjects of malignant new growths, acute and subacute inflammatory disorders, abscesses, pregnancy, tubercle, hæmophilia, and diabetes. Three classes of cases have been more or less successfully treated by massage. First, it has been used to promote absorption of extravasated blood and inflammatory exudations. In every instance of the kind there is considerable danger in practising massage; Dr. Holtzapfel therefore rejected the practice in these cases. Secondly, massage has been employed for the stretching of bands of adhesion and cicatricial tissue, as in old cases of perimetritis and parametritis. In such cases the practice has proved satisfactory. The dragging of the uterus backwards through adhesions or cicatricial shortening of its ligaments can often be remedied by massage, which has likewise given excellent results in parametritis chronica atrophicans, a hitherto somewhat intractable disease. The third class of cases in which massage has been tried with success includes all in which relaxation of the tissues has caused prolapse of the uterus, ovaries, or vagina. Massage appears to restore to the relaxed ligaments and other structures their normal elasticity, also affecting beneficially their innervation and blood supply. The results, according to Dr. Holtzapfel, are more satisfactory than those which follow complicated plastic operations for the relief of the same conditions.

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(77) Pregnancy with Atresia Vaginæ.

Dr. Heyder (*Archiv. f. Gynäk.*) describes a case of pregnancy in which, at the seventh month, a membrane was discovered one inch and a half above a normal lacerated hymen. It formed a complete diaphragm, attached somewhat obliquely. A minute aperture, hardly one-twelfth of an inch in diameter, was found, after careful search; it lay in the most anterior part of the symphysis. A sound was passed into the opening, so that the membrane could be put on the stretch from above, and the membrane was then divided by a Paquelin's cautery. The flaps were trimmed away, and the mucous membrane united by fine silk. There was a considerable amount of bleeding. Above the seat of malformation the vagina was normal. The membrane was histologically a simple process of the mucosa. Multiple diaphragms of this kind have, in rare instances, been observed in the vaginal canal. Some authorities—as Dr. Matthews Duncan—maintain that in so-called imperforate hymen it is really a septum immediately above the hymen that is imperforate. Careful examination has before now proved that the hymen can be distinguished below the septum. This was the case in Dr. Heyder's patient. When the septum is distended by retained menstrual blood the appearance of the hymen stretched out on its surface is very characteristic.

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(78) Gangrenous Septicæmia during Labour.

M. Riberolles (*Revue générale de Clin. et de Thér.*, July 10th, 1890) describes a case in which a macerated fœtus putrefied rapidly during delivery. The author contends that the mother was acutely infected during labour. Almost directly after delivery, when she had just declared that she felt comfortable, M. Riberolles prepared to give her an antiseptic irrigation. He suddenly perceived that the patient was quite dead. Ten minutes later universal infiltration of the tissues with gaseous products of decomposition was observed. Dr. Paul Petit (*Nouv. Archives d'Obstét. et de Gynéc.*, September, 1890), in commenting upon this case, believes that the fœtus may have caused septic infection much earlier than M. Riberolles appears to suppose.

PATHOLOGY.

(79) Lesions in Death from Burn.

Emil Welti (*Centralbl. f. allg. Path. u. pathol. Anat.*, August 15th, 1890) records three cases of deaths from burns caused by an explosion of petroleum. In the first case (a woman, aged 55) death occurred five hours and a half afterwards. The burn involved the upper and lower extremities and the whole of the trunk with the exception of one side of the chest, the face, and scalp. The necropsy, the results of which are fully recorded, revealed nothing special in most of the organs. The mucous membrane of the stomach was pale, that of the jejunum stained with bile, its folds broad and high, rete villi thick and succulent; but neither in stomach nor in duodenum were any hæmorrhages or ulcers to be found. In the ileum the epithelium readily peeled off, the follicles were slightly swollen and injected, and in certain patches several follicles had fallen out, leaving circular defects. The large intestine was normal. The anatomical condition is summed up as an extensive burn of the first, second, and to a slight extent also third degree, with follicular ulceration of Peyer's patches. On microscopic examination there were found stases in the vessels of the medulla and intestine; masses of granular material and thrombi in the cortex of the kidneys, spleen, portal vessels, and especially the interlobular veins, in cerebral hemispheres, medulla, and pia mater; hyaline thrombi in veins of spleen and medulla of kidneys, with hyaline casts in certain of the renal tubules. The second case was that of a woman, aged 33, the burn, chiefly of the second degree, involving the arms, legs, and back. Death occurred in 36½ hours. The *post-mortem* exami-

nation showed contracted kidneys with hæmorrhages In the highest part of the jejunum there was diffuse hæmorrhagic effusion along the edges of the valvulæ with punctiform hæmorrhages here and there between the folds. Several of Peyer's patches were strongly injected. On microscopic examination there were stases in kidneys and vessels of medulla; thrombi in kidneys, liver, and pia mater; hyaline thrombi in portal vessels, desquamation of epithelium of straight tubules of kidney and in stomach. In the third case (a girl, aged 23) there were extensive burns of second and third degree involving the hands and lower extremities. Death 60½ hours afterwards. Hæmorrhages were found on the dura mater, under the pericardium, in the kidneys, and in the mucous membrane of the pelves of the kidneys; mucous membrane of stomach and duodenum strongly injected. Microscopic examination showed stases in vessels of cerebral cortex, pia, medulla, pelves of kidney and epicardium; thrombi in vessels of kidneys, liver, and dura mater; hyaline thrombi in vessels of stomach; hæmorrhages in pelves of kidneys, epicardium, gastric and duodenal mucous membrane; and necrosis of epithelium of urinary tubules, liver cells, and gastric mucous membrane. The author, in conclusion, discusses the mode of origin of the vascular and hyaline thrombi and the parenchymatous changes in liver and kidneys. The renal changes he regards as the results of the thrombosis, and not as a nephritis directly induced by the burns—the view previously advanced by Ponfick.

(80) Effect of Chemical Substances on Rabic Virus.

THERE are as yet but few observations as to the effect of various chemical substances on the rabic poison. Two Italian observers, De Blasi and Travali (*Riforma Medica*, 1890, Nos. 19 and 20), have recently made a number of observations on this subject, directing their special attention to the relative value of the various agents—such as ammonia, nitrate of silver, etc.—most frequently employed in practice to counteract the effects of the rabic poison. The following was their method of experiment: When the agent employed was fluid or soluble, a piece of the virulent spinal cord of the animal dead from rabies was placed for a certain time in it, well washed afterwards in distilled water, and then broken down into an emulsion and injected into the peritoneal cavity of two guinea-pigs. When the substance to be tested was insoluble, a certain quantity of it in the form of powder was shaken up with an emulsion of a fresh cord, which was then, after a certain time, similarly injected into guinea-pigs. Their results show that the rabic poison is extremely sensitive to caustic and antiseptic substances. Creolin and citric acid were the most powerful in this respect, next in order of efficacy being solid nitrate of silver, sulphate of copper (10 per cent.), salicylic acid (5 per cent.), hydrochloric acid (5 per cent.) and perchloride of iron (2 per cent.). Other substances tried, including sulphate of zinc, permanganate of potash, iodoform, ammonia, sulphuric acid, camphor, boracic acid, proved less powerful.

(81) Sarcoma and Carcinoma.

DR. RAPOK, of Strassburg, has collected statistics of all cases of tumour treated in the surgical clinic of the University (*Deutsche Zeitschr. f. Chirurg.*, vol. xxx, p. 465). SIX hundred and sixty-nine varieties of tumours are noted, excluding all cysts and glandular formations which did not appear to be true new growths. The series includes 399 carcinomata and 141 sarcomata, the relative number of other tumours being of less statistical value. Out of the 399 carcinomata, 212 were situated in the face and oral cavity; 133 occurred in men, 79 in women; the majority occurred amongst men in the sixth, amongst women in the seventh decade. In cancer of the lips and oral cavity, especially the tongue, the causation was traced in many cases to foul tobacco-pipes, chewing tobacco, carious teeth, and warts. Partial excision or caustics and cauteries badly applied to warts were found to be distinctly exciting causes of cancer. Warts and old scars played a great part in the causation of cancer of the face. Of the cases of mammary cancer, 86 occurred in women and 3 in men; the fifth decade supplied the largest contingent of these cases, representing the menopause and the senile degeneration of the mammary gland. Injuries were not often traced as causes, but heredity, warts, fissures, morbid conditions in the puerperium, and mastitis appeared to exert a more distinct influence. The majority of the sarcomata occurred during the second decade. The greater number were situated in the face and oral cavity. Heredity, wounds, warts, and tuberculosis appeared amongst the more important and distinct causes.

PHARMACOLOGY AND THERAPEUTICS.

(82) Recent Hypnotics.

DR. H. DEHIO (*Petersburg. med. Wochenschr*, No. 33, 1890) gives the result of trials of various hypnotics in the Dorpat Clinic for Nervous and Mental Diseases. Hypnone in doses of 10 to 15 drops was useless, and methylal and chloralamide were found of little use in the few cases in which they were tried. Paraldehyde was and remains the most reliable hypnotic used in the clinic. In severe cases a dose of 5 to 6 grammes was followed by another of 3 to 4 grammes; this was found sufficient to give a night's rest. As a rule the drug acted well, but sometimes only slight sleep followed, and in other cases tolerance was soon established. But these occasional disadvantages are counterbalanced by the fact that the drug, even in large doses, does not influence the heart or respiration. Paraldehyde may upset the digestion, causing diarrhœa. The medicine must be pure, it must not redden litmus paper. If kept exposed to daylight or in badly-stoppered bottles it soon becomes acid. After the prolonged use of paraldehyde the following symptoms may appear: loss of appetite, grey coloration of the face, dryness of the skin, and loss of body weight; at the same time the drug does not produce somnolence. These symptoms soon disappear on discontinuance of the drug. Paraldehyde, however, is the sheet anchor in the Dorpat Nerve Clinic. Amylene hydrate was also found of use, and has the advantage of not affecting the digestive tract, although it may produce headache and depression. Urethan is of service in doses of 45 to 90 grains in mild case of insomnia. Sulphonal was given in doses of 15 to 60 grains. It was not found so useful as paraldehyde and amylene hydrate. Drowsiness, weakness, and inco-ordination of gait were noticed after its administration. In mania it acts only slightly, also in progressive paralysis. In many cases of excessive motor disturbance, such as occurs in mania and delirium tremens, all these hypnotics are practically useless. Hydrochlorate of hyoscine ($\frac{1}{75}$ of a grain) is the best remedy in these conditions. Dr. Dehio's conclusions do not quite agree with those of the Therapeutic Committee (see report in the BRITISH MEDICAL JOURNAL, 1890).

(83) Trional and Tetronal.

THE action of these hypnotics has been tried by Drs. Barth and Rumpel (*Deutsche med. Wochenschr.*, No. 32, 1890). Both these bodies are related to sulphonal. Sulphonal is diethyl-sulphon-dimethyl-methane; trional is diethyl-sulphon-methyl-ethyl-methane; tetronal is diethyl-sulphon-diethyl-methane. Trional is therefore sulphonal in which one radical of ethyl replaces one of methyl. In tetronal both radicals of ethyl are replaced by ethyl. The action of these preparations was tested in cases in which sulphonal had been proved to have a beneficial effect. Tetronal was given 74 times in 30 cases, the largest individual dose being 60 grains. It was effective in 65 instances, and did not produce any disagreeable effects. Trional was given 72 times in 40 cases, and produced sleep in 64 instances, the largest individual dose being 45 grains. In some cases lassitude and drowsiness were complained of as after-effects. In 21 cases of delirium tetronal was given 52 times, in 10 cases trional was given 52 times; neither had any appreciable effect. The authors conclude that both these hypnotics are useful drugs, but are not superior to sulphonal. In some cases in which sulphonal did not act trional and tetronal were effective, for example, in certain nervous conditions. Both drugs seem to have fewer after-effects than sulphonal.

(84) Dietetic Rules in Diseases of the Digestive Organs.

DR. J. BOAS (*Deutsche med. Zeit.*, No. 43, 1890) deals generally with the dieting of stomach and intestinal disorders. In considering diet in such conditions, three points must be looked to: (1) the constitutional condition and the state of nutrition of the patient; (2) the surroundings and customary habits of the patient. Thus, the dietetic treatment of the workman must be considered from another standpoint than that of the well-to-do. Thirdly, the most important point is the prescription of diet with the actual disturbance of digestion in view. The stomach, for example, gets out of order in two of its functions —the motor and the chemical; absorption in the stomach plays a very small part in the functions of the organ, so that an endeavour must be made (by the use of the stomach sound) to discover (1) whether there is a disturbance of the gland function, and whether there are fermentative processes going on; (2) whether the motor activity of the stomach is at fault; or (3) whether both these conditions are present. There are cases, for example, in which the stomach seems incapable, owing to deficiency of gastric juice, of digesting proteids; in these cases the digestion of carbohydrates may be perfect. Proteids in these cases must, therefore, be given in a prepared or semidigested form (albumen, peptone). In these cases fat is digested with difficulty, or, rather, is split up into fatty acids by the fermentation in the duodenum, and so does not enter the lymph channels in the usual form of an emulsion of neutral fat. Sodium chloride is useful in these cases, since it helps to form the hydrochloric acid of the stomach, which tends to stop fermentative processes. On the other hand, there are cases where there is hyperacidity in the stomach. In these cases proteids are exceedingly well digested and carbohydrates but feebly acted upon, so that the digested forms, such as dextrines, malted foods, etc., have to be prescribed. For insufficiency of the motor activity of the stomach, enemata of half a litre, with a proper diet, are beneficial.

(85) Calomel as a Diuretic.

DR. E. JENDRÁSSIK (*Pesth. med.-chir. Presse*, Nos. 7 and 14, 1890) in his latest observations on the action of calomel in heart disease concludes that its employment is only indicated when other remedies (especially those acting directly on the heart) have lost their effect. The condition of the heart has no appreciable effect on the polyuria produced by calomel. Fränkel considers that the drug acts best when the pulse tension is low, Brauner when the dropsy is the result of a weakened heart or of degeneration of the cardiac muscle. With both these ideas Jendrássik disagrees. Cases are quoted by him showing the value of the drug in "desperate" conditions of heart disease, where, for example, tincture of strophanthus had signally failed. The dosage is an important point. Within the twenty-four hours eight to ten doses of one grain and a half (0.1 gramme) of calomel may be given, and the treatment must not be continued for longer than two days. After one day's treatment as much as from 4 to 7 litres of urine have been passed, accompanied by the passage of lung casts for a short time. Such a dosage obviates the occurrence of stomatitis; if this occurs the best mouth wash is a 2 to 3 per cent. solution of sodium carbonate. In two cases death occurred during the calomel treatment, but this result was due to the patients taking too much of drug; they found it of benefit and went on taking it. Jendrássik therefore advises the treatment to be carried out under strict medical control. In some cases death occurs suddenly, but never during the stage of diuresis.

(86) Europhine.

DR. SANSONI (*Therap. Monatshefte*, September, 1890) has made a number of observations on the action of euphorine in disease, Professor Giacoso has given the name of europhine to phenyl-urethan

$$CO\begin{matrix}OC_2H_5\\NH(C_6H_5)\end{matrix}$$

a new substance derived from aniline. It is a white crystalline powder, with faint aromatic odour and slight taste, almost insoluble in water, but quite soluble in weak alcohol. Sansoni first tested the antipyretic effect of euphorine. In fever due to a large number of causes, the temperature fell quickly within an hour; the fall reached its maximum usually in three hours, and lasted for five to seven hours, but sometimes not so long, and at other times longer. The subsequent rise of temperature was usually sudden and accompanied by rigors. Its antipyretic action is often greater in certain individuals than in others, and hence it is advisable to begin with small doses. Doses of 15 to 20 grains in twenty-four hours can generally be taken without bad results. It is best to begin with a dose of 3 grains. In rheumatism, 15 to 30 grains daily caused disappearance of the pain, swelling, and fever. In chronic cases the good results were slight. In a few cases euphorine acted well as an analgesic, but on the whole the success must be considered small. In chronic ulcers and in ophthalmia the powder proved itself a better antiseptic than any other which the author had tried. On the whole, as an antipyretic, antirheumatic, and analgesic euphorine seems to be inferior to many older remedies of the same nature, and unless future experience bears out the high character given to it by Sansoni as an antipyretic, there is little likelihood of its ever becoming a useful drug.

(87) Spermin.

IN consequence of Brown-Séquard's well known statements as to the rejuvenating power of hypodermic injections of semen, renewed attention was given to an alkaloid found in the seminal fluid. The alkaloid was named spermin, and the hydrochlorate

of spermin has been administered hypodermically by Professor Poehl, in a large number of cases with alleged beneficial effect. He states that it acted as a general stimulant in many forms of chronic disease, and his results have been confirmed by a number of other Russian observers. Dr. Paul Werner (*St. Petersb. med. Woch.*, October 4th) devotes a long article to an exhaustive criticism of these results, and shows that most of the cases reported were of such a nature (diabetes, cardiac disease, general debility, syphilis), that improvement often takes place spontaneously without other treatment than rest and the improved hygienic conditions consequent on coming into hospital. In no case was the benefit derived of a striking or unusual character. In other cases (as with Brown-Séquard himself, according to Dr. Werner) the tonic effect was strictly psychical, the temporary increase of strength being due to the excitement of the experiments and a confident hope of their results. The author illustrates his argument by pointing out that similar results have been obtained by many forms of charlatanism. At the tenth International Medical Congress, Professor Poehl read a paper on spermin before the Section of Pharmacology. Several members, however, disagreed entirely with what he said, and Professors Schmiedeberg and Kobert both stated that they had found spermin to be an inert substance, and that it could in no sense be regarded as a stimulant. (BRITISH MEDICAL JOURNAL, August 30th, p. 521). Spermin (*Nouveaux Remèdes*, September 24th, 1890) has been known under various names since 1851—as Charcot's or Charcot-Neumann crystals, as the asthma crystals of Leyden, and as Schreiner's crystals. In 1865 Boettcher found them in semen, and they have been obtained from the spleen, the blood, the spinal cord, white of egg, sputum, and old anatomical preparations. In 1888 Ladenburg and Abel established their identity with ethylenimine $\begin{matrix}CH_2\\CH_2\end{matrix}\!>\!NH$.

The alkaloid resembles other ptomaines chemically, and when free has the odour of fresh semen, the same odour sometimes found in sputum being also no doubt due to its presence.

(88) Chloroform Inhalation in Phthisis.

DR. PIO MARFORI (*Riforma Medica*, September 27th) claims to have obtained good results in some cases of phthisis by making the patients inhale chloroform for a few minutes six times a day. The cough is relieved, the character of the secretion modified, and the febrile temperature reduced. The symptoms return when the treatment is suspended. Dr. Marfori gives one illustrative case, that of a young man with advanced disease of one apex, and greatly reduced by two years of illness, who was "perfectly cured" by chloroform inhalations in three months. During that period he had taken, or at any rate used, five kilogrammes of chloroform.

(89) Podophyllin and Mercuric Chloride in Diarrhœa.

PROFESSOR H. A. HARE has contributed to the *University Medical Magazine* for October, 1890, a note on the treatment of two forms of diarrhœa observed chiefly in children. (1) Diarrhœa due to defective secretion of the various intestinal juices: In these cases there is a history of constipation with light-coloured or greyish stools, which is suddenly replaced by diarrhœa of watery stools containing particles of curd or semidigested food; the stools have often a mouldy odour; the child rapidly wastes, suffers from constant vomiting, and ordinary astringent remedies only check the diarrhœa temporarily, and do not ameliorate the general condition. In these cases podophyllin is of great value; under its use the stools gradually assume a yellowish or brown tinge. The treatment has the further advantage that it is not followed by constipation. The prescription for a child of sixteen months or two years is as follows: ℞ Resinæ podophylli, gr. j; alcohol, ℥j. One drop in a teaspoonful of water every five hours. For an older child two grains of podophyllin resin may be dissolved in the alcohol. (2) Diarrhœa due to fermentation and irritation of the intestines, with consequent formation of mucus: The child passes stools in which mucous masses, often enveloping scraps of food, float in a little watery fluid, or the mucous masses are passed alone or mixed with streaks of blood. Corrosive sublimate is useful in these cases. The following is the prescription Dr. Hare recommends: ℞ Hydrarg. bichlor., gr. ½; aq. destillat. ℥ij. M. One teaspoonful every five hours. It is important to use pure distilled water; ordinary water may precipitate the mercury. Professor Hare does not claim that either of these methods of treatment is novel, but he seems to have defined the cases in which the drugs should severally be used with greater precision than other writers.

(90) Treatment of Epilepsy.

TWO years ago Dr. H. C. Wood, of Philadelphia, suggested the use of antipyrin and bromide of ammonium in epilepsy. The treatment has been tested in forty-three cases of idiopathic epilepsy by Dr. Charles S. Potts, who reports the results in the *University Medical Magazine* for October. In none of the cases did this combination of remedies fail to cause marked amelioration of the symptoms, and in some it gave relief when all other commonly used remedies had failed. In no case were any indications of bromism noticed, nor were the disagreeable symptoms occasionally produced by antipyrin ever observed. The dose of antipyrin given to an adult was gr. vi, and of bromide of ammonium gr. xx.

(91) Treatment of Gonorrhœa in Men.

PROFESSOR EDUARD LANG (*Wiener med. Wochenschrift*, October 4th, 1890) discusses some of the commoner causes of the prolongation of gonorrhœa and of complications of various kinds. Two of the more important points in treating gonorrhœa are rest and the proper regulation of eating and drinking. Some cases get well in a few weeks without other treatment; but a railway journey, riding, or dancing may prolong the attack or excite some complication. With regard to injections, Professor Lang states that he uses them in some cases, and internal remedies alone in others, but he does not say what are the circumstances which guide him in his choice. Too frequent injections retard rather than hasten the cure. Twice, or at most three times, a day is usually sufficient. The injection most favoured by Professor Lang is a solution (¼ to 1 per cent.) of sulpho-carbolate of zinc, and of this salt a stronger solution can be borne if some mucilaginous fluid (a decoction of carrageen, for example) be used instead of water. Another point to be attended to is the size of the syringe. Patients if left to themselves often use too large an instrument, and by injecting too great a bulk of fluid injury is done to the inflamed urethra. Except in chronic cases, when a larger quantity may be necessary to distend the urethra, Professor Lang uses syringes of three different sizes, holding 6, 8, and 10 grammes respectively; and when he prescribes an injection he orders at the same time which-ever of these syringes seems best suited to the case. The practice of self-treatment by means of injections obtained haphazard from a friend or from some druggist is mentioned as another cause of ill conse-

quences, and the paper ends by referring to the remote evils, including sterility, which may result from badly treated and protracted gonorrhœa.

(92) Ergot in Phthisical Sore Throat.

DR. BENJAMIN BROOKE, writing in the *University Medical Magazine* for October, reports favourably of the use of ergot in what he calls "the ordinary sore throat of phthisis." The most prominent symptoms in the class of cases to which he refers are thirst, dryness of the mouth and throat, and dysphagia. The pharyngeal mucous membrane is congested, and in some cases there are small ulcers. The fluid extract of ergot, in doses of 20 minims, produced very great amelioration of the symptoms in a few days. The cases were observed in the Philadelphia Hospital, in the service of Dr. William E. Hughes, who in a note states that the effect upon the pharyngeal congestion was very marked within a few days. He adds, however, that after cessation of treatment the symptoms had a tendency to recur; another exhibition of ergot again alleviated them, though the relief seemed to be rather less pronounced.

(93) Lard in Strychnine Poisoning.

IN the *North Carolina Medical Journal* for September, Dr. W. H. Cobb, jun., records an interesting case of strychnine poisoning. The patient was a coloured woman, aged 42, who whilst suffering from what she called "inward fevers" had taken two capsules which she supposed to contain quinine, but which actually contained strychnine. After taking them she busied herself about breakfast, and, after working for some time, she says she heard them "bust" in her stomach. At 7.30 the family sat down to breakfast, when, just as she was about to drink some coffee, she was seized with a tetanic spasm. Her husband, finding that she had taken the strychnine capsules, immediately began administering lard to her until she had swallowed about one pint of it. The doctor arrived some two hours after the poison was taken, and at once administered morphine, gr. $\frac{1}{4}$, and atropine, gr. $\frac{1}{100}$, to control the painful spasms; this was followed by emetics of ipecacuanha and warm salt and water, but without result; later on, however, tickling the fauces induced emesis, when she vomited up about a pint of lard. She did not vomit again, though renewed efforts were made to make her do so, but after another dose of morphine and atropine the spasms abated, and she made a good recovery. Dr. Cobb attributes the favourable result partly to the fact that the capsules were about sixteen months old, and, therefore, took some time to dissolve, and partly to the incorporation of the poison with the lard, and its consequent non absorption. The failure of the emetics to produce vomiting he ascribes to the fact that the stomach was lined with a layer of lard.

(94) Action of Certain Anæsthetics and Hypnotics on Metabolism.

TANIGUTI (*Virchow's Archiv*, cxx, p. 121) has published the results of certain observations made under Salkowski's direction. The experiments were made on a dog in nitrogenous balance. A single administration of chloroform by inhalation, or the administration of one gramme and a half by the mouth, caused an unmistakable but slight rise in the excretion of nitrogen, thereby showing that the disintegration of albumin was hastened. The inhalation of ether had no effect in this direction. In another series of experiments on a dog he found that chloroform water, paraldehyde, and chloral hydrate in moderate dose very considerably increased the output of nitrogen. The possible effects of this action should not be lost sight of in man.

DERMATOLOGY.

(95) Psorospermosis.

DR. BOECK (*Monats. f. prakt. Derm.*, vol. xi, No. 3) describes a case of psorospermosis which he presented to the Society of Physicians, at Christiania, on September 11th. The patient, a man aged 47, had suffered from the disease for sixteen years. There was scattered more or less over the whole body an eruption of papules, varying in size from a millet to a hemp seed, which were covered with epidermic scales. The case was a typical example of Darier's *psorospermose folliculaire végétante*, as this disease was shown at the Dermatological Congress at Paris. Microscopical preparations were shown in which there were numerous encysted coccidia in the epidermis, especially in the stratum granulosum. Where the process was severe the epidermis became detached from the papillary body in such a manner that only single rows of cells covered the latter. The papillæ themselves were elongated and ramified. At a later meeting (November 20th, 1889) Dr. Boeck presented two more cases of the same disease, both sons of the patient previously shown, a proof in favour of the contagiousness of the disease and of coccidia as its cause. The affection in these patients occupied the same sites as in the case described above. It was shown that the disease, when not too inveterate, was very amenable to treatment, and it was therefore necessary that it should be commenced early. In one case pyrogallic acid was successfully applied in the form of ointment. The other cases had not been treated.

(96) Lanolin.

DR. PASCHKIS (*Monats. f. prakt. Derm.*, vol. xi, No. 5) read a paper before the Dermatological Section of the International Medical Congress, Berlin, on lanolin. He remarked on its harmlessness when applied to the skin, and stated that, combined with soap and fat, it forms an excellent ointment basis. In these combinations, however, it is liable to change. Mixtures of lanolin with mineral fats undergo no change, and he recommends an unguentum lanolini composed of lanolin, paraffin, cetaceum, and water, which is absolutely free from acids, and can take up 50 per cent. of water and any medicinal ingredient.

ANATOMY.

(97) Ranvier's Constrictions in the Spinal Cord of Vertebrates.

DR. W. T. PORTER (*Quart. J. Micros. Sci*, vol. xxxi, p. 91) deals with the presence of Ranvier's constrictions in the spinal cord of vertebrates. Although generally doubted, the existence of Ranvier's nodes in the spinal cord has been asserted by several observers. Their presence can be demonstrated on silver and osmium preparations after teasing. Longitudinal sections of the spinal cord of the ox from near the median fissure also give satisfactory results. Only the outer fibres of the sections should be looked at, as they are stained the best.

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